

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Moore, et al	
Serial No:	To Be Assigned	Examiner: To Be Assigned
Filed:	Herewith	Group Art Unit: To Be Assigned
For:	VACUUM ULTRA-VIOLET TRANSMITTING SILICON OXYFLUORIDE LITHOGRAPHY GLASS	

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §§ 1.56, 1.97 – 1.98**

Commissioner of Patents  
Alexandria, VA 22313-1450

Dear Sir:

The Examiner's attention is hereby directed to the following reference(s) listed on the attached Form PTO-1449 for consideration in connection with the examination of the above-identified patent application. A copy of each of the reference(s) is enclosed unless it was previously submitted in related U.S. Application Nos. 09/997, 785, 09/799,987 and 09/397,573 in a corresponding applications.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the enclosed documents constitute "prior art." If it should be determined that any of the submitted documents do not constitute "prior art" under United States law, applicant(s) reserve the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant(s) further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the enclosed references, should one or more of the references be applied against the claims of the present application.

Respectfully submitted,

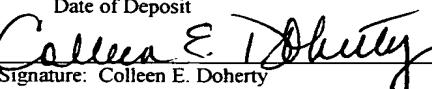
  
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 607-248-1253

Date: November 5, 2003

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FORM PTO-1449 (MODIFIED)		ATTORNEY DOCKET NO.	SERIAL NO.
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANTS INFORMATION DISCLOSURE STATEMENT		Moore 7-6C	To Be Assigned
		APPLICANT Moore et al.	
		FILING DATE Herewith	GROUP: To Be Assigned

REFERENCE DESIGNATION		U.S. PATENT DOCUMENTS					
Examiner Initial		Document Number	Date	Name	Class	Sub-Class	Filing Date if Approp.
	AA	1,283,333	10/29/18	Shaw			
	AB	2,188,121	1/23/40	Smith	47	78.1	
	AC	3,740,207	6/19/73	Bogrets et al.	65	67	
	AD	3,933,454	1/20/76	DeLuca	65	3	
	AE	4,221,825	9/9/80	Guerder et al.	427	34	
	AF	4,345,928	8/24/82	Kawachi et al.	65	18.2	
	AG	4,363,647	12/14/82	Bachman et al.	65	18.2	
	AH	4,612,023	9/16/86	Kreutzer et al.	65	32	
	AI	4,650,511	3/17/87	Koya et al.	65	30.1	
	AJ	4,666,495	5/19/87	Kreutzer et al.	65	258	
	AK	4,789,389	12/6/88	Schermerhorn et al.	65	31.2	
	AL	4,917,718	4/17/90	Berkey	65	108	
	AM	5,043,002	8/27/91	Dobbins et al.	65	31.2	
	AN	5,326,729	7/5/94	Yaba et al.	501	54	
	AO	5,364,433	11/15/94	Nishimura et al.	65	17.4	
	AP	5,410,428	4/25/95	Yamagata et al.	359	350	
	AQ	5,415,953	5/16/95	Alpay et al.	430	5	
	AR	5,474,589	12/12/95	Ohga et al.	65	397	
	AS	5,599,371	2/4/97	Cain et al.	65	413	
	AT	5,609,666	3/11/97	Heitmann	65	421	
	AU	5,655,046	8/5/97	Todoroki et al.	385	144	
	AV	5,683,483	11/4/97	Yosiaki et al.	65	102	
	AW	5,667,547	9/16/97	Christiansen et al.	65	17.4	
	AX	5,668,067	9/16/97	Araujo et al.	501	54	
	AY	5,679,125	10/21/97	Hiraiwa et al.	65	397	
	AZ	5,683,483	11/4/97	Yosiaki et al.	65	102	

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	<b>APPLICANT</b> Moore et al.		
	FILING DATE Herewith	GROUP: To Be Assigned	

**REFERENCE DESIGNATION**      **U.S. PATENT DOCUMENTS**

Examiner Initial		Document Number	Date	Name	Class	Sub-Class	Filing Date if Approp.
	AA1	5,698,484	12/16/97	Maxon	501	54	
	AB1	5,702,495	12/30/97	Hiraiwa et al.	65	17.1	
	AC1	5,702,847	12/30/97	Tarumoto et al.	430	5	
	AD1	5,707,908	1/13/98	Komine et al.	501	53	
	AE1	5,735,921	4/7/98	Araujo et al.	65	32.1	
	AF1	5,764,345	6/9/98	Fladd et al.	356	35.5	
	AG1	5,837,024	11/17/98	Fabian	65	17.4	
	AK1	5,970,746	10/26/99	Fujinoki et al.	65	102	

**FOREIGN PATENT DOCUMENTS**

		Document Number	Date	Country	Class	Sub-Class	Translation Yes	No
	AA	98/27018	6/25/98	PCT	C03B	19/14	X	
	AB	98/52879	11/26/98	PCT	C03B	19/14	X	
	AC	0 401 845 A2	12/12/90	EPO	G02B	1/00	X	
	AD	0 483 752 A2	5/6/92	EPO	C03C	3/06	X	
	AE	0 488 320 A1	6/3/92	EPO	C03C	3/06	X	
	AF	0 607 433 B1	11/4/98	EPO	C03B	23/06	X	
	AG	0 636 586 A1	2/1/95	EPO	C03C	3/06	X	
	AH	0 870 737 A1	10/14/98	EPO	C03C	3/06	X	
	AI	0 901 989 A1	3/17/99	EPO	C03B	19/14	X	
	AJ	2,184,434	6/24/87	United Kingdom	C03B	20/00	X	
	AK	2,704,015 A1	8/3/78	Germany	C03B	23/04	X	
	AL	63-210044	8/31/88	Japan	C03C	17/245	X	
	AM	1-138145	5/31/89	Japan			X	
	AN	62-235223	10/15/87	Japan (abstract)	C03B	20/00		X
	AO	67/22389	11/1/67	Japan				X

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**OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)**

AA	Douglas Allan, Charlene Smith, N.F. Borrelli and T. P. Seward III, <i>193-nm excimer-laser-induced densification of fused silica</i> , OPTICS LETTERS/Vol. 21, No. 24/December 15 1996, pp. 1960-1962
AB	Roger J. Araujo, Nicholas F. Borrelli and Charlene Smith, <i>INDUCED ABSORPTION IN SILICA (A PRELIMINARY MODEL)</i> , SPIE Vol. 3424, 1998, pp. 25-32.
AC	George H. Beall, <i>INDUSTRIAL APPLICATIONS OF SILICA</i> , Reviews in Mineralogy, <u>29</u> , pp. 469-505
AD	N.F. Borrelli, Charlene Smith, Douglas C. Allan and T.P. Seward III, <i>Densification of fused silica under 193-nm excitation</i> , J. Opt. Soc. Am B/Vol 14, No. 7/July 1997, pp. 1606-1615.
AE	J.W. Fleming and D.L. Wood, <i>refractive index dispersion and related properties in fluorine doped silica</i> , APPLIED OPTICS/Vol. 22, No. 19/October 1, 1983, pp.3102-3104.
AF	David L. Griscom, <i>Optical Properties and Structure of Defects in Silica Glass</i> , The Centennial Memorial Issue, 99[10], 1991, pp. 926-942.
AG	Hideo Hosono, Masafumi Mizuguchi, and Hiroshi Kawazoe, <i>Effects of fluorine dimer excimer laser radiation on the optical transmission and defect formation of various types of synthetic SiO<sub>2</sub> glasses</i> , APPLIED PHYSICS LETTERS, Vol. 74, No. 19, 10 May 1999, pp. 2755-2757.
AH	Toshio Ibuki et al., <i>ABSORPTION SPECTRA OF SiCl<sub>4</sub>, SiCl<sub>6</sub>, SiF<sub>3</sub>CH<sub>3</sub> AND GeF<sub>4</sub> IN THE VUV REGION</i> , Chemical Physics Letters, Vol. 136, No. 5, 15 May 1987, pp. 447-450.
AI	W.D. Kingery, H.K. Brown, and D. R. Uhlmann, <i>Introduction to Ceramics, Second Edition</i> , John Wiley & Sons, 1976. pg. 654.
AJ	M. Kyoto, Y. Ohoga, S. Ishikawa, Y. Ishiguro, <i>Research and Development Group, Sumitomo Electric Industries Ltd</i> , 1993 Chapman and Hall, pp. 2738-2744.
AK	I. H. Malitosn, <i>Interspecimen Comparison of the Refractive Index of Fused Silica</i> , Journal of the Optical Society of America, Vol. 55, No. 10, pp. 1205-1209.
AL	James A. McClay and Angela S.L. McIntyre, <i>157 nm optical lithography: The accomplishments and the challenges</i> , Solid State Technology, June 1999, pp. 57-68.
AM	Taro Moritani et al., "Glass Engineering Handbook," April 20, 1964, Asakura Shoten, p. 611, Clause 2.1 Fabrication..

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	AN	M. Rothschild, D.J. Ehrlich & D.C. Shaver, <i>Effects Of Excimer Laser Irradiation On The Transmission, Index Of Refraction, And Density Of Ultraviolet Grade Fused Silica</i> , Appl. Phys. Lett 55(13) 9/25/99, pp. 1276-1278
	AO	Charlene M. Smith, Lisa A. Moore, <i>Fused Silica for 157 nm Transmittance</i> , SPIE Vol. 3676, 15-17 March 1999, pp. 834-841.
	AP	D.R. Sempolinski, T.P. Seward, C. Smith, N. Borrelli, C. Rosplock, <i>Effects of Glass Forming conditions on the KrF-Excimer-Laser-Induced Optical Damage In Synthetic Fused Silica</i> , Journal of Non-Crystalline Solids 203 (1996) pp. 69-77
	AQ	Richard H. Stulen & Donald W. Sweeney, <i>Extreme Ultraviolet Lithography</i> , Optics & Photonics News, August 1999, Vol. 10, No. 8, pp. 34-38
	AR	Richard E. Schenker & William G. Oldham, <i>Ultraviolet-induced Densification In Fused Silica</i> , J. Appl. Phys. 82 (3), 1 August 1997, pp. 1065-1071
	AS	Koji Tsukuma, N. Yamada, S. Kondo, K. Honda & H. Segawa, <i>Refractive Index, Dispersion and Absorption of Fluorine-Doped Silica glass in the Deep UV Region</i> , Journal of Non-Crystalline Solids 127 (1991), pp. 191-196
	AT	H. Takahashi, A. Oyobe, M. Kosuge & R. Setaka, <i>Characteristics of Fluorine-Doped Silica Glass</i> , Technical Digest: European Conference on Optical Communication, (1986) pp. 3-6
	AU	K. Tsukuma, N. Yamada, S. Kondo, K. Honda & H. Segawa, <i>Refractive Index, Dispersion and Absorption of Fluorine-Doped Silica Glass in the Deep UV Region</i> , Journal of Non-crystalline Solids 127 (1991), pp. 191-196
	AV	W. Vogel, Chemistry of Glass, The American Ceramic Society, Inc. (1985), pp. 203-205.
	AW	PTO: 96-0383, Journal, Title: Sheet Glass
	AX	Corning HPFS®, ArF Grade, Product Literature, 1999
	AY	Shin-Etsu Chemical Homepage, Semiconductor Materials Division, <a href="http://www.shinetsu.co.jp/english/profile/division/sem-div/sem-div.html">(5/17/99)</a> pp. 1-2
	AZ	Purity and Chemical Reactivity, Isimoto Co., Ltd. Homepage, Purity and Chemical Reactivity, <a href="http://www.isimoto.com/isimoto/english/feature1.html">(5/17/99)</a> pp. 1-3

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	AL	0 878 451 A1	11/18/98	EPC			
	AM	0 835 848 A2	4/15/98	EPC			
	AN	08-067530	3/12/96	JAP			X
	AO	07-291635	11/7/95	JAP			X
	AP						
	AQ						

**OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)**

	AA1		Products for Optics, Isimoto Co., Ltd. Homepage, <a href="http://www.isimoto.com/isimoto/english/variation_3.html">http://www.isimoto.com/isimoto/english/variation_3.html</a> , (5/17/99) pp. 1-2
	AB1		Product Information, Isimoto Co., Ltd. Homepage, <a href="http://www.isimoto.com/isimoto/english/product_info.html">http://www.isimoto.com/isimoto/english/product_info.html</a> , (5/17/99) pp. 1-4

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